

Appl. No.: 10/612,671
Amdt. dated 12/21/2004
Reply to Office action of October 7, 2004

Amendments to the Claims:

1. (Currently amended) A preform for use as an intermediary member in forming a machined structural assembly of predetermined dimensions, comprising:

a first structural member defining at least one contact surface;

a second structural member defining at least one contact surface, said at least one contact surface of the second structural member being structured to correspond to said at least one contact surface of said first structural member; and

a linear friction weld joint joining said at least one contact surface of said first structural member and said at least one contact surface of said second structural member such that said first and second structural members form a preform having dimensions approximating the dimensions of the machined structural assembly to thereby reduce material waste and machining time when forming the machined structural assembly,

wherein said first and second structural members of the preform have a combined mass that is at least about twice the mass of the machined structural assembly, and said first and second structural members of the preform define an outer surface that is generally unmachined, such that the preform is structured to be machined to the dimensions of the machined structural assembly by machining the outer surface of said structural members and removing at least about one-half of the mass of the preform.

2. (Original) A preform according to Claim 1 wherein said first and second structural members comprise a material selected from the group consisting of aluminum, aluminum alloys, titanium, titanium alloys, nickel-based, steel, copper-based alloys, and beryllium-based alloys.

3. (Original) A preform according to Claim 1 wherein said first and second structural members comprise dissimilar materials.

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4. (Original) A preform according to Claim 1 further comprising a third structural member friction welded to at least one of the first and second structural members.

5. (Previously presented) A preform according to Claim 1 wherein at least one of said first and second structural members comprises a material selected from the group consisting of titanium and titanium alloys.

6. (Previously presented) A preform according to Claim 5 wherein each of said first and second structural members comprise a material selected from the group consisting of titanium and titanium alloys.

7. (Previously presented) A preform according to Claim 5 wherein said first and second structural members comprise dissimilar materials.

8. (Previously presented) A preform according to Claim 1 wherein said contact surfaces of said first and second structural members are rectangular.

9. (Previously presented) A preform according to Claim 1 wherein at least one of said first and second structural members is a rectangular block.